



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/553,082

09/01/2006

Torgny Palenius

P18087-US2

2719

27045

7590

06/09/2009

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR 1-C-11
PLANO, TX 75024

EXAMINER

DONADO, FRANK E

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

06/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/553,082 | Applicant(s) PALENIUS ET AL. | |
| | Examiner FRANK DONADO | Art Unit 2617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 15-25 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15-25 and 28-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/11/09 has been entered.

Response to Amendment

2. The amendment filed on 5/11/09 has been entered. Claims 1 and 16 have been amended. Claims 13-14 and 26-27 have been cancelled. No claims have been added. Claims 1-12, 15-25, and 28-35 are currently pending in this application, with claims 1 and 16 being independent.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7-11, 15-17, 23-25 and 30-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Nevo, et al (**WO 00/04729**). From now on, Nevo, et al, will be referred to as Nevo.

Art Unit: 2617

Regarding claim 1, Nevo teaches a method for synchronizing measurements in a mobile communication apparatus having a first active radio access means adapted to communicate according to a first radio access technology (RAT) and a second passive radio access means adapted to communicate according to a second RAT, comprising generating a time reference common to the first and second radio access means **(During a handover of a mobile station, MS, there is a 20 ms interrupt/delay in communication using a 1st/CDMA communication type to allow for a neighbor scan to take place, where during said interrupt, base stations stop communicating using said 1st/CDMA communication type and start establishing communication with said MS using a 2nd/GSM/TDMA communication type, indicating base stations that use both types of communication know the precise moment in time when said interrupt will start to take place and said precise moment is a common time reference to said base stations of each communication type, Pg. 4, lines 18-29)**, obtaining, by said first radio access means, at least one time schedule in a time format of said first radio access means, said time schedule indicating a time gap during which the second radio access means is allowed to be active **(Said 20 ms interval is the agreed upon time schedule for said interrupt in communication between said base stations, where said 1st/CDMA base station uses a time of day format for its synchronization clock and comprises the 20 ms time interval in its own time of day format, Pg. 4, lines 20-25 and 12-15)**; and an activation time of the time schedule being determined based on the common time reference **(Said time schedule is activated relative to said precise**

Art Unit: 2617

moment when said interrupt starts, pg. 4, lines 23-29); forwarding said time schedule to said second radio access means (A target TDMA base station is identified during said handover to instruct said target TDMA base station for said establishment of communication with said MS after said handover, Pg. 4, lines 25-29); and translating said time schedule by said second radio access means into a time format of said second access means (Said 2nd/GSM/TDMA base station uses its own synchronization clock and comprises the 20 ms time interval in its own time format, in order to complete said handover process, Pg. 4, lines 12-17).

Regarding claim 2, Nevo teaches the method according to claim 1, wherein when activation of the time schedule is requested **(The applicant defines the time schedule as the time gap, which is an interrupt. Nevo teaches a scheduled time of 20 ms during which a 1st base station is interrupted to allow time for synchronization over to the 2nd base station, pg. 4, lines 23-29)**, the request initiates a common time event (CTE) **(The interrupt is the common time event, and transmission of a 1st base station may be interrupted while synchronization occurs with the 2nd base station, pg. 4, lines 23-29)**, in response to which the time reference is generated in the first and the second radio access means **(The MS requests a handover and this activates a time schedule. This causes an interruption to occur to allow the switch from TDMA/GSM base station to CDMA base station, during which the time of day is received in the TDMA/GSM base station and then synchronized to the CDMA base station, pg. 4, lines 1-4 and 30-33 and pg. 5, lines 1-2 and 7-8).**

Art Unit: 2617

Regarding claim 3, Nevo teaches the method according to claim 2, wherein the CTE is hardware supported interrupt **(In switching from a CDMA base station to a TDMA/GSM base station, the MS, a hardware component, is at first in communication with the CDMA base station and sends a type of signal indicating a need for a handover that causes the interruption to occur, pg. 4, lines 18-25).**

Regarding claim 7, Nevo teaches the method according to claim 1, wherein the time schedule is obtained based on information received from a first communication network to which the first radio access means is coupled **(In switching from a CDMA base station to a TDMA/GSM base station, the MS is at first in communication with the CDMA base station, and the CDMA base station sends this signal indicating the need for handover to the MS, causing the interruption to occur so that the MS may perform a neighbor scan, pg. 4, lines 18-25).**

Regarding claim 8, Nevo teaches the method according to claim 7, wherein the received information comprises configuration data specifying gaps in which the second radio access means is allowed to be active **(A time gap of 20 ms is defined to be the interruption time during which handover should occur, pg. 4, lines 23-25).**

Regarding claim 9, Nevo teaches the method according to claim 7, wherein the received information comprises setup or reconfiguration information, and the first radio access means obtains the gaps based on stored and received data **(The MS receives stored and received time of day information from the TDMA/GSM indicating to the**

Art Unit: 2617

MS that it now needs to reconfigure/synchronize to the CDMA base station, during which the interruption in communication to the 1st/TDMA/GSM base station occurs, Pg. 4, lines 1-7, 12-17 and 30-33 and Pg. 5, lines 1-8).

Regarding claim 10, Nevo teaches the method according to claim 1, wherein the duration of a time gap and the distance between the common time reference and a time gap are given in the time schedule **(Nevo teaches defining a time gap duration of 20 ms (IS-95 standard) that is taken based on the time of day information that is received by both the TDMA/GSM base station and CDMA BASE STATION and is the common time reference between both the TDMA/GSM base station and CDMA base stations, pg. 4, lines 10-12, 23-25 and 30-33 and Pg. 5, lines 1-8).**

Regarding claim 11, Nevo teaches the limitations of claim 1, wherein several time gaps being are determined in the time schedule and the distance between each of the time gaps being specified in the time schedule **(The distance between the time gaps is defined according to the IS95 standard and is about 20 ms long, pg. 4, lines 23-25).**

Regarding claim 15, Nevo teaches the method according to claim 1, wherein the time schedule is utilized by the second radio access means to provide cell measurements **(The mobile station is handed over from the 1st base station to the 2nd base station in response to the data from the 2nd mobile station and the 2nd mobile station subsequently takes cell measurements, pg. 6, lines 1-4.**

Art Unit: 2617

The data received includes a time scheduled for the 1st mobile station to be interrupted, pg. 4, lines 18-25).

Regarding Claim 16, Nevo teaches an arrangement for synchronizing measurements in a mobile communication apparatus, comprising a first active radio access means, a first transceiver means for communicating with a first communication network, the first transceiver means being adapted to communicate according to a first radio access technology **(The mobile station communicates with an active base station corresponding to a 1st/CDMA communication type, pg. 4, lines 18-20)**; a second passive radio access means comprising a second transceiver means with a second communication network, the second transceiver means being adapted to communicate according to a second radio access technology **(The mobile station communicates with said active base station corresponding to a 1st/CDMA communication type before a handover to a passive base station of a 2nd/GSM/TDMA communication type takes place, pg. 4, lines 18-29)**; a time reference generating means for generating a time reference common to the first radio access means and the second radio access means **(During a handover of a mobile station, MS, there is a 20 ms interrupt/delay in communication using a 1st/CDMA communication type to allow for a neighbor scan to take place, where during said interrupt, base stations stop communicating using said 1st/CDMA communication type and start establishing communication with said MS using a 2nd/GSM/TDMA communication type, indicating base stations that use both types of communication know the precise moment in time when said interrupt will start to**

Art Unit: 2617

take place and said precise moment is a common time reference to said base stations of each communication type, Pg. 4, lines 18-29); a time schedule generating means in the first radio access means for obtaining at least one time schedule in a time format of the first radio access means, time schedule indicating at least one time gap, during which the second radio access means is allowed to be active **(Said 20 ms interval is the agreed upon time schedule for said interrupt in communication between said base stations, where said 1st/CDMA base station uses a time of day format for its synchronization clock and comprises the 20 ms time interval in its own time of day format, Pg. 4, lines 20-25 and 12-15);** and the time schedule generating means being adapted to determine the activation time of the schedule based on the common time reference **(Said time schedule is activated relative to said precise moment when said interrupt starts, pg. 4, lines 23-29);** means for forwarding the time schedule to said second radio access means **(A target TDMA base station is identified during said handover to instruct said target TDMA base station for said establishment of communication with said MS after said handover, Pg. 4, lines 25-29);** and means on the second radio access means for translating the time schedule into a time format of the second radio access means **(Said 2nd/GSM/TDMA base station uses its own synchronization clock and comprises the 20 ms time interval in its own time format, in order to complete said handover process, Pg. 4, lines 12-17).**

Art Unit: 2617

Regarding claim 17, Nevo teaches the arrangement according to claim 16, wherein the time reference generating means is adapted to generate a common time event (CTE) **(The interrupt is the common time event, and transmission of a 1st base station may be interrupted while synchronization occurs with the 2nd base station, pg. 4, lines 23-29)** and the time reference in response to the CTE in the first and the second radio access means **(The MS requests a handover and this activates a time schedule. This causes an interruption to occur to allow the switch from TDMA/GSM base station to CDMA base station, during which the time of day is received in the TDMA/GSM base station and then synchronized to the CDMA base station, pg. 4, lines 1-4 and 30-33 and pg. 5, lines 1-2 and 7-8).**

Regarding Claim 23, Nevo teaches the arrangement according to claim 16, wherein the time schedule generating means is adapted to obtain the time schedule based on stored information and data received from the first communication network during operation **(In switching from a CDMA base station to a TDMA/GSM base station, the MS is at first in communication with the CDMA base station, and the CDMA base station sends this signal indicating the need for handover to the MS, causing the interruption to occur so that the MS may perform a neighbor scan, pg. 4, lines 18-25).**

Regarding claim 24, Nevo teaches the arrangement according to claim 16, wherein the time schedule generating means is adapted to incorporate into the time

Art Unit: 2617

schedule parameters that identify the duration of the time gap, and the distance between the common time reference and the at least one time gap **(Nevo teaches defining a time gap duration of 20 ms (IS-95 standard) that is taken based on the time of day information that is received by both the TDMA/GSM base station and CDMA BASE STATION and is the common time reference between both the TDMA/GSM base station and CDMA base stations, pg. 4, lines 10-12, 23-25 and 30-33 and Pg. 5, lines 1-8).**

Regarding Claim25, Nevo teaches the arrangement according to claim 16, wherein the time schedule generating means is adapted to incorporate into the time schedule a plurality of time gaps and to specify the distance between each of the plurality of time gaps in the time schedule **(The distance between the time gaps is defined according to the IS95 standard and is about 20 ms long, pg. 4, lines 23-25).**

Regarding claim 28, Nevo teaches the arrangement according to claim 16, wherein the second radio access means is adapted to provide cell measurements during the time gaps given in the time schedule, and wherein the first access radio means is adapted to be passive **(The mobile station is handed over from the 1st base station to the 2nd base station in response to the data from the 2nd mobile station and the 2nd mobile station subsequently takes cell measurements, pg. 6,**

Art Unit: 2617

lines 1-4. The data received includes a time scheduled for the 1st mobile station to be interrupted, pg. 4, lines 18-25).

Regarding claim 30, Nevo teaches the arrangement according to claim 16, wherein the second access technology is GSM (Global System for Mobile Communication) **(The Mobile Station is in communication with a 2nd radio access technology that is GSM during handover, pg. 4, lines 19-21).**

Regarding claim 31, Nevo teaches the arrangement according to claim 16, wherein the first and second radio access means have at least one common radio resource **(A duplexer conveys RF signals via antenna to GSM or CDMA base station, pg. 19-21).**

Regarding claim 32, Nevo teaches the arrangement according to claim 31, wherein the common radio resource is an antenna **(A duplexer conveys RF signals via antenna to GSM or CDMA base station, pg. 19-21).**

Regarding claim 33, Nevo teaches the arrangement according to claim 16, further comprising a mobile terminal operable within the first radio access technology and second radio access technology **(The mobile station is in communication with 2 types of base stations and switches between TDMA/GSM base station and CDMA base station, pg. 18, lines 20-23);** the mobile terminal having digital computer capabilities **(TDMA/GSM base station and CDMA base station are produced as**

Art Unit: 2617

digital data, pg. 19, lines 17-18); a computer program product embodied on a computer readable memory of the mobile terminal, having software code portions for generating a reference common to the first and the second radio access means **(The processor allows for the IS-95 standard to be implemented, which includes the interruption to allow for the handover to take place, Pg. 20, lines 1-4);** obtaining at least one time schedule, the time schedule indicating a time gap during which the second radio access means is allowed to be active **(The applicant defines the time schedule as the time gap, which is an interrupt, during which the second radio access means is allowed to be active. Nevo teaches transmission of the 1st base station may be interrupted while it synchronizes to the 2nd base station, pg. 4, lines 23-29);** and determining an activation time of the time schedule based on the common time reference **(The applicant defines the time schedule as the time gap, which is an interrupt, during which the second radio access means is allowed to be active. Nevo teaches transmission of the 1st base station may be interrupted while it synchronizes to the 2nd base station, pg. 4, lines 23-29).**

Regarding claim 34, Nevo teaches the arrangement according to claim 16, adapted for use in a wireless communication apparatus **(Nevo's invention is specific to wireless telecommunications, pg. 1, lines 5-6).**

Regarding claim 35, Nevo teaches the arrangement according to claim 34; wherein the wireless communication apparatus is one from the group consisting of a

Art Unit: 2617

mobile radio terminal, a mobile telephone (1), a pager and a communicator (**Nevo's invention is specific to wireless telecommunications, pg. 1, lines 5-6).**

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2617

8. Claims 4-6, 12 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nevo, in view of Leprieur, et al (**US Patent No. 6,959,201**). From now on, Leprieur, et al, will be referred to as Leprieur.

Regarding claim 4, Nevo teaches the limitations according to claim 2. Nevo fails to teach registering counter values from a first and second counter provided in the first and the second radio access means, respectively, in response to the CTE. Leprieur teaches using a mobile communications device with two types of radio access technologies that performs handover, further comprising registering counter values from a 1st and 2nd counter provided in the 1st and 2nd radio access technology in response to a common time event. **(The common time event is an interruption of transmission by the 1st radio access technology so the handover may be performed. The time shift between the 2 mobile radio modes, which is an interruption in the transmission of 1st radio access technology, is calculated in response to the interruption. Counters that are part of clocks associated with the 1st and 2nd radio modes assist in calculating this time shift. A 1st mobile radio mode M1 associated with UTRAN technology has a 1st counter SFN and a 2nd mobile radio terminal M2 has a 2nd counter T1, T2, etc. pg. 2, paragraph 35).** It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Nevo to include registering counter values in response to the common time event for the purpose of reliability.

Regarding claim 5, Nevo in view of Leprieur teach the limitations of claim 4.

Leprieur further teaches a current connection frame number, current slot and current chip as being registered by a first radio access means in response to the CTE. A frame number corresponds to the 1st mobile radio mode and is detected as part of the time shift calculation process. Timeslot counters and chip counters are found in the 1st radio mode. **(pg. 2, paragraphs 19 and 35).**

Regarding claim 6, Nevo in view of Leprieur teach the limitations of claim 4.

Leprieur further teaches the current frame number in a GSM multiframe structure and the position within the frame as being registered by the second radio access means in response to the CTE. A frame number corresponds to the 2nd mobile radio mode and is detected as part of the time shift calculation process. **(pg. 2, paragraph 21).**

Regarding claim 12, Nevo teaches the limitations of claim 1. Nevo does not teach registering counter values from a first and second counter provided in the first and the second radio access means respectively in response to the CTE. Leprieur teaches using a mobile communications device with two types of radio access technologies that performs handover, further comprising registering counter values from a 1st and 2nd counter provided in the 1st and 2nd radio access technology in response to a common time event. The common time event is an interruption of transmission by the 1st radio access technology so the handover may be performed. The time shift between the 2

Art Unit: 2617

mobile radio modes, which is an interruption in the transmission of 1st radio access technology, is calculated in response to the interruption. Counters that are part of clocks associated with the 1st and 2nd radio modes assist in calculating this time shift. A 1st mobile radio mode M1 associated with UTRAN technology has a 1st counter SFN and a 2nd mobile radio terminal M2 has a 2nd counter T1, T2, etc. **(pg. 1, paragraphs 13-23 and pg. 2, paragraph 35)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Nevo to register counter values from a first and second counter provided in the first and the second radio access means respectively in response to the CTE for the purpose of reliability.

Also regarding claim 12, Nevo does not teach a delay between channel timing and the counter of the first radio access means is taken into account when determining the activation time of the time schedule. Leprieur teaches a time shift must be calculated using a counter located in the 1st radio mode. **(pgs. 1, paragraphs 13-23 and pg. 2, paragraph 35)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Nevo to use the delay to synchronize the clocks corresponding to the 1st and 2nd radio access means as part of the synchronization process between the 1st and 2nd radio access means.

Regarding Claim 18, Nevo teaches the limitations of claim 17. Nevo does not teach the time reference generating means comprising a first and second counter

Art Unit: 2617

synchronize mechanism provided in the first and second radio access means, respectively, where one of the counter synchronize mechanisms is adapted to generate an interrupt and wherein the interrupt is the CTE the other counter synchronize mechanism adapted to receive the interrupt. Leprieur teaches using a mobile communications device with two types of radio access technologies that performs handover, further comprising registering counter values from a 1st and 2nd counter provided in the 1st and 2nd radio access technology in response to a common time event. The common time event is an interruption of transmission by the 1st radio access technology so the handover may be performed. The time shift between the 2 mobile radio modes, which is an interruption in the transmission of 1st radio access technology, is calculated in response to the interruption. Counters that are part of clocks associated with the 1st and 2nd radio modes assist in calculating this time shift. A 1st mobile radio mode M1 associated with UTRAN technology has a 1st counter SFN and a 2nd mobile radio terminal M2 has a 2nd counter T1, T2, etc. **(pg. 1, paragraphs 13-23 and pg. 2, paragraph 35)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Nevo to register counter values from a first and second counter provided in the first and the second radio access means respectively in response to the CTE for the purpose of synchronizing the 1st and 2nd radio access means in order to assist with the handover process.

Regarding claim 19, Nevo in view of Leprieur teaches the limitations of claim 18. Leprieur further teaches either or both of the counter synchronize mechanisms are

Art Unit: 2617

adapted to write a bit onto a connection to the other, the bit being the interrupt. Bit counters are used in the clock corresponding to the 2nd radio mode that assist in the synchronization process from the 1st radio mode to the 2nd radio mode. **(pg. 2, paragraph 35).**

Regarding Claim 20, Nevo in view of Leprieur teach the limitations of claim 19. Leprieur further teaches the time reference generating means comprises first and second counter means and first and second counter value register means provided in the first and second radio access means, respectively. Leprieur teaches using a mobile communications device with two types of radio access technologies that performs handover, further comprising registering counter values from a 1st and 2nd counter provided in the 1st and 2nd radio access technology in response to a common time event. **(The common time event is an interruption of transmission by the 1st radio access technology so the handover may be performed. The time shift between the 2 mobile radio modes, which is an interruption in the transmission of 1st radio access technology, is calculated in response to the interruption. Counters that are part of clocks associated with the 1st and 2nd radio modes assist in calculating this time shift. A 1st mobile radio mode M1 associated with UTRAN technology has a 1st counter SFN and a 2nd mobile radio terminal M2 has a 2nd counter T1, T2, etc. pg. 2, paragraph 35).**

Regarding Claim 21, Nevo in view of Leprieur teach the arrangement according to claim 20. Leprieur further teaches the counter of the first radio access means, in

Art Unit: 2617

operation, is adapted to generate current connection frame number, current slot and current chip, which the time reference generating means is adapted to store in the first counter value register means in response to the CTE. A frame number corresponds to the 1st mobile radio mode and is detected as part of the time shift calculation process. Timeslot counters and chip counters are found in the 1st radio mode. **(pg. 2, paragraphs 19 and 35).**

Regarding Claim 22, Nevo in view of Leprieur teach the arrangement according to claim 20. Leprieur further teaches the counter of the second radio access means is adapted to generate the current frame number in GSM multiframe structure and the position within the frame, which the time reference generating means is adapted to store in the second counter value register means in response to the CTE. A frame number corresponds to the 2nd mobile radio mode and is detected as part of the time shift calculation process. **(pg. 2, paragraph 21).**

9. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nevo.

Regarding claim 29, Nevo teaches the arrangement according to claim 16 wherein the first radio access technology is CDMA **(pg. 4, lines 18 through 29)**. Nevo fails to teach the arrangement according to claim 16, wherein the first radio access technology is WCDMA. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the mobile radio terminal of Nevo to use WCDMA as

Art Unit: 2617

a first radio access technology instead of CDMA as a first radio access technology for better customer service.

Response to Arguments

10. Applicant's arguments regarding claims 1-12, 15-25 and 28-35, filed 5/11/09, have been fully considered but they are not persuasive for the following reasons:

Regarding Nevo not teaching the mobile station comprising internal synchronization, the mobile station synchronizes itself to either radio access technology, either the TDMA or the CDMA, according to which one it will communicate with during a handover from one of said radio access technologies to the other, indicating the mobile station of Nevo comprises internal clock synchronization and the translation feature, where both types of communication networks have their own synchronization clock and thus their own time format, as indicated on pg. 4, lines 7-17).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK DONADO whose telephone number is (571) 270-5361. The examiner can normally be reached Monday-Friday, 9:30 am-6 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-6361.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-273-8300.

/Frank Donado/
Art Unit 2617

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617